

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/052899

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 E21B43/02 E21B7/00 E21B7/28 E21B43/119 E21B43/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 386 875 A (VENDITTO JAMES J ET AL) 7 February 1995 (1995-02-07) column 2, lines 5-11 column 4, lines 7-19 -----	1-5, 9, 10
X	US 2003/070805 A1 (GREBENNIKOV VALENTIN T ET AL) 17 April 2003 (2003-04-17) paragraphs '0001!, '0015!, '0016!, '0055!, '0079! -----	1-4, 11-14
X	US 5 337 825 A (MARMORSTEIN ET AL) 16 August 1994 (1994-08-16) column 1, lines 9-15 claim 13 figures 1-4 ----- -----	1-8, 11-14



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the documents are combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

28 January 2005

Date of mailing of the international search report

14/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5878 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Schouten, A

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DATABASE WPI Section Ch, Week 199415 Derwent Publications Ltd., London, GB; Class H01, AN 1994-125104 XP002315316 -& SU 1 031 263 A1 (N SEA GEOLOG GEOPHYS RES PRODN ASSOC) 30 December 1993 (1993-12-30) abstract; figures 3,5 -----	1
A	US 2003/168216 A1 (NICHOLSON ELIZABETH DIANE) 11 September 2003 (2003-09-11) claim 1 -----	1
A	US 6 283 214 B1 (PAPANASTASIOU PANOS ET AL) 4 September 2001 (2001-09-04) abstract -----	1

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 15 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 15

Claim 15 contains a reference to the drawings. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5386875	A	07-02-1995	US EP	5360066 A 0602980 A2		01-11-1994 22-06-1994
US 2003070805	A1	17-04-2003		NONE		
US 5337825	A	16-08-1994	RU AU WO	2074957 C1 4515893 A 9405898 A1		10-03-1997 29-03-1994 17-03-1994
SU 1031263	A1	30-12-1993		NONE		
US 2003168216	A1	11-09-2003	GB AU WO	2361723 A 5050501 A 0181719 A1		31-10-2001 07-11-2001 01-11-2001
US 6283214	B1	04-09-2001	GB US	2350379 A ,B 6401818 B1		29-11-2000 11-06-2002